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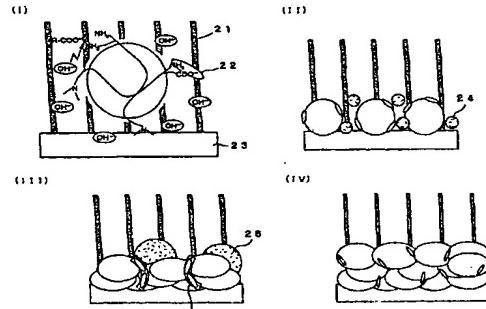
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(54) Title: METHOD OF FORMING A CATIONIC ELECTRODEPOSITION FILM FORMING AN ELECTRIC THROUGH HOLE AND AN ELECTRIC THROUGH HOLE-FORMING CATIONIC ELECTROCOATING COMPOSITION



(57) Abstract: It is an object of the present invention to provide a method of forming a cationic electrodeposition film, which has no detrimental effect on basic performances of electrodeposition that a curing property in low temperature and the stability of pigment dispersion are good and basic performances such as corrosion resistance and a rust-preventive property are maintained while maintaining both surface smoothness and economical advantage and exhibits the extremely precise throwing power and can attain an excellent ability of preventing a pinhole due to gas. A method of forming a cationic electrodeposition film, comprising immersing an article to be coated, composed of a galvanized steel sheet, into a bath tank filled with a cationic electrocoating liquid containing a base resin and forming an electrodeposition film on the surface of the above galvanized steel sheet by current-carrying, wherein an electric through hole is formed within the above film to secure the conductivity of the above film in order to wipe out a spark discharge phenomenon arising due to the presence of a hydrogen bubble produced through cohesion of hydrogen gas, with the passage of time, generated by the above current-carrying at a gap of the film, which develops in depositing/forming the film by the above current-carrying and increasing its thickness with the passage of time, on the surface of the above galvanized steel sheet, and thereby an increase in an electric resistance value ($\text{k}\&\cdot\text{cm}^2$) per unit weight (mg) of the above film is inhibited.

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